effectiveness estimating by continuous 12-lead electrocardiographic analysis (12L-ECG).
Methods: Out of 157 consecutive pts who presented in the first 6 hours of STEMI were studied . The course of higher ST-segment elevation was evaluated by continuous 12L-ECG monitoring. Successful IT was considered as the abrupt 50% ST stable recovery in the first 90 mnts after IT initiation. The studied markers were estimated upon admission.
Results: Seventy-nine patients had positive (>0.1ng/L) cTnI. There was a significant relationship between cTnI and prehospital delay (time interval from index pain to admission)(Spearman R=0.51; p<0.001). Patients with or without positive cTnI didn't differ in either hs-CRP (0.58mg/dl vs.0.54mg/dl respectively; p=0.65), Lp(a) (25.7mg/dl vs.26.3mg/dl respectively; p=0.74), or Fb (3.4g/L vs.3.3g/L respectively; p=0.85). In the first 90 min 85 (85/157; 54.1%) patients had attained 50% ST recovery. By univariate logistic regression analysis cTnI (RR=0.44; p=0.001), time interval from index pain to thrombolysis initiation (RR=0.68; p<0.001), hs-CRP (RR=0.74; p<0.001), and diabetes mellitus (RR=0.27; p=0.001) were related to IT effectiveness. Fb or Lp(a) were not (p=NS for both). By multivariate analysis time interval from index pain to IT initiation (RR=0.54; p<0.001), hs-CRP (RR=0.66; p=0.01), and diabetes mellitus (RR=0.30; p=0.009) were the only independent predictors of IT outcome.
Conclusions: The present study implies that hs-CRP is a strong predictors of IT effectiveness whilst elevated plasma cTnI values may reflect the preceding myocardial necrosis (strong association with prehospital delay). Fb and Lp(a) are not associated with thrombolysis outcome. Acute inflammatory reaction at the culprit artery may be responsible for the fail of IT in pts with high CRP.

1191-48 Outcome After Urgent Percutaneous Coronary Interventions in ASSENT-3

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Background: When compared with unfractionated heparin (UFH), co-therapy with enoxaparin (ENOX) or abciximab (ABC) results in a reduction of ischemic complications after ST-elevation acute myocardial infarction treated with tenecteplase (ASSENT-3; n=6095). The effect of these new co-therapies on outcome after urgent percutaneous coronary interventions (PCI) is not known. Methods: Clinical outcomes after urgent PCI in the ASSENT-3 trial (n=716, 11.7%) were compared using Cox regression analysis including propensity scores and the timing of the event. Results: Results are shown in Table 1. Fewer ENOX and ABC treated patients needed urgent PCI compared with UFH (242/2037 (11.9%) and 182/2009 (9.1%) vs. 292/2035 (14.3%); p<0.0001). Incidence of ischemic events after urgent PCI was low and no significant differences between the treatments were seen, although there was a trend towards worse outcome with ABC. The incidence of non-cerebral major bleeding complications was significantly higher in the ABC arm compared with the UFH arm, while there was a modest increase with ENOX. Although total puncture-related bleeding rates were similar, more major ones were seen with ENOX. The use of additional UFH during PCI was similar in the 3 groups (68% for ENOX, 71% for ABC and 71% for UFH). Conclusions: Although fewer patients needed urgent PCI after co-therapy with ABC and ENOX, clinical outcomes were less favorable in this selected population, especially with ABC.

Table 1

Endpoint	Label	n/N (%)	HR (95% CI); P-value
Death at 30 days	ENOX vs. UFH	13/242 (5.37%) vs. 13/292 (4.45%)	1.11 (0.51-2.42); 0.80
	ABC vs. UFH	15/182 (8.24%) vs. 13/292 (4.45%)	1.85 (0.87-3.94); 0.11
Reinfarction	ENOX vs. UFH	6 / 242 (2.48%) vs. 8/292 (2.74%)	1.07 (0.37-3.05); 0.90
	ABC vs. UFH	7 / 182 (3.85%) vs. 8/292 (2.74%)	2.09 (0.76-7.81); 0.16
Refractory ischemia	ENOX vs. UFH	4 / 242 (1.65%) vs. 1/292 (0.34%)	4.35 (0.49-38.9); 0.19
	ABC vs. UFH	2 / 182 (1.10%) vs. 1/292 (0.34%)	3.09 (0.28-34.5); 0.36
Composite efficacy endpoint *	ENOX vs. UFH	13/242 (5.37%) vs. 16/292 (5.48%)	0.95 (0.46-1.98); 0.90
	ABC vs. UFH	17/182 (9.34%) vs. 16/292 (5.48%)	1.59 (0.80-3.17); 0.18
Major bleeds	ENOX vs. UFH	17/242 (7.02%) vs. 10/292 (3.44%)	1.67 (0.72-3.90); 0.23
	ABC vs. UFH	16/182 (8.79%) vs. 10/292 (3.44%)	2.87 (1.26-6.58); 0.01
Bleeds at arterial puncture site	ENOX vs. UFH	57/242 (23.55%) vs. 57/292 (19.52%)	1.17 (0.80-1.71); 0.42
	ABC vs. UFH	34/182 (18.68%) vs. 57/292 (19.52%)	0.94 (0.60-1.45); 0.76
Major bleeds at arterial puncture site	ENOX vs. UFH	10/242 (4.13%) vs. 5/292 (1.71%)	2.54 (0.76-8.42); 0.13
	ABC vs. UFH	4 / 182 (2.20%) vs. 5/292 (1.71%)	1.29 (0.32-5.29); 0.72

N: Total number of patients in each group; n: number of events; HR: hazard ratio; CI: confidence interval; *Primary efficacy endpoint of ASSENT-3: 30-day mortality + in-hospital myocardial reinfarction + in-hospital refractory ischemia.

1191-49 Impact of Multivessel Disease on Recovery of Left Ventricular Function After Primary Angioplasty for Acute Myocardial Infarction

Jan-Henk E. Dambrink, Rene J. van der Schaaf, Jan C. Hoorntje, Stoffer Reiffers, Arnoud W. van 't Hof, Harry Suryapranata, Menko-Jan de Boer, Felix Zijlstra, Isala Klinieken, locatie Weezenlanden, Zwolle, The Netherlands

Background. In most patients (pts) with acute myocardial infarction (MI), there is considerable improvement of left ventricular function (LVF) after primary angioplasty (PA), presumably by recovery of stunned myocardium. However, the impact of multivessel disease (MVD) on this process is largely unknown.
Methods. To determine the impact of MVD and other clinical variables on the recovery of LVF we reviewed the data of 1702 pts with acute MI treated with PA. Pts were categorized in one- two- or three vessel disease (1-, 2-, 3-VD) based on the angiogram before PA. Radionuclide ejection fraction (EF) was assessed before discharge and after 6 months.
Results. Serial EF was available in 575 pts: 278 pts (48%) had 1-VD, 164 pts (28%) 2-VD and 133 (23%) 3-VD.
Pts with MVD were older (age 56±11, 60±11 and 64±10 yrs in 1- 2- and 3-VD, respectively, p<.001) and more often had previous MI (5%, 11% and 23%, p<.001). Anterior MI was less frequent in MVD (53%, 43% and 39%, p=.022). There was no significant difference in the prevalence of diabetes (6%, 10% and 8%, p=.298) or procedural success (96%, 96% and 92%, p=.202).
Improvement of EF between discharge and 6 months decreased with more extensive coronary artery disease (CAD)(table).
After correction for age, diabetes, previous MI, infarct size and location, the extent of CAD remained a significant adverse predictor of recovery of LVF.
Conclusion. Recovery of LVF after PA is impaired by more extensive CAD. This effect appears independent of other well known determinants of LVF after MI.

EF before discharge and after 6 months in pts with MVD

	1 VD	2 VD	3 VD	p-value
EF predischarge (%)	44±11	45±11	43±11	0.480
EF 6 months (%)	48±10	47±11	44±12	0.001
Difference(%)	3.7±7.3	1.8±7.6	0.7±7.2	< 0.001
Rel. difference(%)	11±21	6±22	3±20	0.001

1191-50 Patency of Infarct Related Artery Influences In-Hospital Outcome of Patients Undergoing Facilitated Percutaneous Coronary Intervention for Acute Myocardial Infarction

Dariusz Dudek Jacek Legutko, Stanislaw Bartus, Artur Dziewierz, Krzysztof Zmudka, Mieczyslaw Pasowicz, Wieslawa Tracz, Jacek S. Dubiel, Jagiellonian University, Krakow, Poland

Background: Patency of infarct related artery (IRA) before primary percutaneous coronary intervention (PCI) for acute myocardial infarction (AMI) is associated with better outcome. However, there is no data on the influence of IRA patency before PCI on myocardial perfusion and in-hospital outcome of patients (pts) undergoing facilitated PCI. Methods: 198 non shock pts with AMI admitted to remote hospitals were enrolled if they presented within 12 hrs of chest pain onset, were eligible for thrombolysis and if the anticipated transfer time to catheterization laboratory was > 90 min. All pts received i.v. bolus of 60U/kg heparin, 15 mg alteplase and 0.25 mg/kg abciximab at the remote hospital and were immediately transferred to angiography. Infusion of alteplase (35mg/60 min) and abciximab (0.125 ug/kg/min) was continued during transfer. Results: Start of lythic therapy to angiography time was 126±51 min. At baseline angiography occluded IRA (TIMI 0+1) was found in 14% of pts (group 1) and patent IRA (TIMI 2+3) in 86% of pts. (group 2). Immediate PCI was performed in all patients in group 1, and in 75% of pts in group 2. Frequency of TIMI-3 flow after PCI, myocardial perfusion grade (MPG-3) after PCI and in-hospital MACE (death, re-AMI, re-PCI) for both groups are shown in the Table. Conclusions: This combined lythic therapy resulted in 86% of opened IRA before PCI. Patients with occluded IRA at baseline had worse myocardial perfusion and in-hospital clinical outcome even after successful PCI.

Table

TIMI before PCI	TIMI 0+1	TIMI 2+3	p<
n=	27	171	
TIMI 3 after PCI (%)	96.2	92.5	NS
MPG 3 after PCI (%)	19.1	49.0	0.01
Death (%)	7.4	2.3	NS
Re-AMI (%)	7.4	0	NS
Re-PCI (%)	3.7	0.6	NS
MACE (%)	18.5	2.9	0.001

ORAL CONTRIBUTIONS

849FO Featured Oral Session...Using Risk Stratification Tools for Treatment Decisions in Patients With Acute Coronary Syndromes

Tuesday, April 01, 2003, 2:00 p.m.-3:30 p.m.
McCormick Place, Vista S406 A

2:15 p.m.

849FO-2 Degree of Baseline Risk Should, But Does Not, Influence Treatment Decisions in Non-ST Elevation Acute Coronary Syndromes: Evidence From International Clinical Trials

Padma Kaul, L. Kristin Newby, Yuling Fu, Harrington Robert, Christopher Granger, Frans J. Van de Werf, Daniel Mark, Paul W. Armstrong, University of Alberta, Edmonton, AB, Canada, Duke Clinical Research Institution, Durham, NC

Background: Increasing ST-segment depression (ST-dep) on the baseline ECG is an important tool for risk-stratification in non-ST elevation (NSTE) acute coronary syndromes (ACS). In particular, the presence of ST-dep identifies patients with the greatest ischemic burden most likely to benefit from early invasive therapy. The ACC/AHA Guidelines denote new or presumably new ST-dep a class IA recommendation for early invasive strategy. However, whether this recommendation is followed in practice is not known.

Methods: We examined temporal and international patterns in the extent to which the degree of ST-dep influences the use of angiography, PCI and CABG over a five-year time frame ('94 - '99).

Results: Patients enrolled in GUSTO-2b (5632), PARAGON-A (1246) and PARAGON-B (855) were included.

Conclusions: Irrespective of region of enrollment, there appears to be little relationship between the extent of ST-dep and the use of invasive procedures. These data underscore the need for better implementation of guidelines to captitalize on unrealized opportunities for more efficient use of angiography and revascularization procedures among high risk NSTE ACS patients.

Category	No ST-dep	1mm ST-dep	ST-dep>=2mm
N	3694	2619	1420
US			
Angiography	81	80	77
PCI	33	28	29
CABG	17	24	33
Canada			
Angiography	48	49	40
PCI	19	15	12
CABG	8	15	14
Europe			
Angiography	53	51	50
PCI	20	19	16
CABG	9	11	16

2:30 p.m.

849FO-3 Abciximab Treatment Does Not Influence Levels of Inflammatory Markers in Patients With Acute Coronary Syndrome

Stefan James, Paul W. Armstrong, Robert M. Califf, Agneta Siegbahn, Maarten Simoons, University Hospital, Uppsala, Sweden

Background: The GUSTO IV trial included 7800 patients with ACS without ST-elevation and the patients were not scheduled for early revascularization. There was no clinical benefit of abciximab infusion for 24 or 48 hours compared to placebo. Through cross-reactivity with other integrin receptors, abciximab may influence the inflammation system, which has emerged as one plausible explanation for unexpected lack of clinical benefit.

Methods: In the dalteparin substudy all patients received dalteparin in stead of unfractionated heparin. Serial serum samples for analyses of Interleukin-6 (Il-6) and high sensitive C-reactive protein (CRP) were obtained from all patients (n=404) at selected sites.

Results:

		Baseline	24h	48h	72h
Il-6 (ng/L)	Placebo	5.7	7.8	8.1	6.6
	Abciximab 24 h	5.2	7.0	6.7	6.1
	Abciximab 48 h	5.3	7.9	8.1	6.6
	P*	n.s	n.s	n.s	n.s
CRP(mg/L)	Placebo	4.4	8.4	8.4	7.7
	Abciximab 24 h	4.2	7.0	6.7	6.1
	Abciximab 48 h	4.9	9.2	8.2	9.0
	P*	n.s	n.s	n.s	n.s

*Kruskal-Wallis test

Conclusion: In patients with non-ST elevation ACS levels of inflammatory markers raised early. However, the inflammatory activity, as measured by levels of Il-6 and CRP, was not influenced by abciximab treatment.

2:45 p.m.

849FO-4 Suboptimal Adherence to the ACC/AHA Non-ST Elevation Acute Coronary Syndrome Practice Guidelines for Patients With Positive Troponin Levels

Matthew T. Roe, Eric D. Peterson, Yun Li, Robert A. Harrington, Charles V. Pollack, Ralph G. Brindis, Robert H. Christenson, Sidney C. Smith, Jr., W. Brian Gibler, E. Magnus Ohman, Duke Clinical Research Institute, Durham, NC

Background: ACC/AHA guidelines for the treatment of non-ST-elevation acute coronary syndromes (NSTE ACS) recommend aggressive early management for patients with positive troponin levels, but the influence of troponin results on the quality of care provided to ACS patients has not been evaluated.

Methods: Troponin results were recorded in 16,079 of 18,985 high-risk patients with NSTE ACS (ischemic ST-segment changes or positive cardiac markers) in the CRUSADE quality improvement initiative. Troponin results were determined to be positive (any value within the first 24 hours > upper limit of normal) in 12,365 of 16,079 (75%) patients. Use of acute therapies and interventions given Type IA recommendations by the ACC/AHA guidelines was evaluated in patients without contraindications to the given therapies stratified by troponin results.

Results: The table shows adjusted odds ratios for the likelihood that troponin-positive patients received the given treatment. **Conclusions:** NSTE ACS patients with positive troponins are managed more aggressively than patients with negative troponins, but type IA recommendations from the ACC/AHA guidelines are under-utilized in all patients. Increased use of evidence-based therapies for patients with positive troponins may reduce the high mortality seen in this group.

	Positive Troponins	Negative Troponins	Adjusted Odds Ratio	95% CI	Adjusted P-Values
Aspirin < 24 hrs(%)	90.7	88.8	1.42	1.24-1.64	<0.0001
Clopidogrel < 24 hrs (%)	36.3	32.9	1.36	1.24-1.49	<0.0001
Heparin < 24 hrs (%)	85.5	76.9	2.16	1.94-2.40	<0.0001
GP IIb/IIIa Inhibitors < 24 hrs (%)	33.8	22.7	2.16	1.95-2.40	<0.0001
Early Cardiac Cath < 48 hrs (%)	44.2	40.3	1.54	1.40-1.70	<0.0001
In-Hospital Mortality (%)	5.9	2.8	1.76	1.36-2.26	<0.0001